

Work Order ID 51753

September 2, 2009 8:33:14 AM



Page 1

Item ID: D2580-1

Accept



Setup Start



Revision ID: D

Stop



Item Name: 205 Skidtube bent detail

Start Date: 9/02/09 Start Qty: 2.00



Cust Item ID:

Required Date: 9/04/09 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

W

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev. Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2580

Rev D

100

0.00



HandFinish

Memo

0.00

Hand Finishing

1- Inspect mat'l D2500-1-190 for damage.

2- Chemical Conversion Coat as per QSI 005 4.1

2 0 - AWM 9-9-12/

101

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Q.M. 09 - 09 - 14 0

W/O:		WORK ORDER CHANGES						
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Accept
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Reject
Qty

Reject
Number

Insp.
Stamp

110

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Drill pilot holes using drill jig DT 8149 (Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2580 without cutting fluid

3-Deburr and blow out all chips from inside of tube

4-Bond web in place per QSI 015.

[]

A/R Sikaflex-291 batch: 17112391

Sikaflex expire date: 10-02-20

Start time: bond for 12hrs 7:50

2 0 - AWM 9.9.14

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) Schol/20

FL

6

Dart Aerospace Ltd

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DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY SCALE NTS	
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED
07-06-28 *[Signature]*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

W/D
*51753***GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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RELEASED
07-06-28

Diagram illustrating the grinding locations on a propeller cross-section. The diagram shows a cross-section of a propeller with a central hub and a blade. The grinding locations are indicated by arrows and labels:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- LOCATION RIDGE ON UNDERSIDE OF D2576
- GRIND FLUSH

Technical drawing of a circular component with a central hole. The drawing includes the following labels and dimensions:

- #0.208**: Dimension for the central hole.
- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)**: Instruction for drilling two locations.
- SEAL WITH SIKAFLEX-241/-291**: Instruction for sealing the component.
- AN3-5A BOLT (1)**: Label for the bolt used in the assembly.
- AN960JDTOL WASHER (1)**: Label for the washer used in the assembly.
- (2 PLACES)**: Dimension for the two places where the bolt and washer are used.
- D2855 CAP**: Label for the cap used in the assembly.
- 0.40**: Dimension for the outer diameter of the component.

Diagram of a circular spacer assembly. The assembly consists of a central circular body with a cross-shaped internal structure. Labels point to various parts: D2579 SPACER (top), D2596 WEB (REF) (left), and ALST-1032-130 (REF) (TYP 50 PLACES) (bottom left). A small detail view of a hole is shown at the top right. To the right of the diagram is a list of instructions.

5

D2579 SPACER

D2596 WEB (REF)

ALST-1032-130 (REF)
(TYP 50 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO #0.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

37.50
DISTANCE TO AFT END
OF D2596 WEB

3
7

1.750 1.750

#0.508 (TYP.)
(40 PLACES)

REFER TO DETAIL A

8.750
17.375
26.000
34.188

57.313 (REF)
7 EQUAL SPACES
8.188 PITCH

38.0 91.500

190.0
(D2500-1)

REFER TO DETAIL A

0.5 1.5 1.5 D

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

WELD AS PER DETAIL B

REFER TO DETAIL C

D

D3566-1 D3566-5 D3566-1 D3566-13





D3564-11 D3564-5 D3564-9 D3564-13

AN3C4A BOLT (1)
AN96C10L WASHER (1)
(50 PLACES)

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51733

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CHECKED		APPROVED	
DATE			
07.02.27			

DRAWING NO.	REV. D
D2580	SHEET 2 OF 3
TITLE	SCALE
205 SKIDTUBE ASSEMBLY	1:24

W/O:		WORK ORDER CHANGES					
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RELEASED
07 Dec 28

Diagram illustrating the grinding locations on a propeller cross-section. The diagram shows a cross-section of a propeller with the following labeled areas:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- LOCATION RIDGE ON UNDERSIDE OF D2576

[illegible]

5

D2579 SPACER

D2596 WEB (REF)

ALS7-1032-130 (REF)
(TYP 50 PLACES)

AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR #50SB HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø.437 X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

37.50
DISTANCE TO AFT END
OF D2596 WEB

3
7

1.750 1.750

#0.508 (TYP.)
(40 PLACES)

REFER TO DETAIL E

REFER TO DETAIL A

8.750
17.375
26.000
34.188

57.313 (REF)
7 EQUAL SPACES
8.188 PITCH

38.0
91.500
190.0
(D2500-1)

(MAKE FROM D2380-1 DRILLING DETAIL)

5.985
1.4
51.340
5.338 (REF)
39.580
5.915
3.630 (REF)
Ø0.508 (B PLACES)
Ø0.640
20.0
11.0
1.0
1.0
13.4
DISTANCE BETWEEN HOLE AND TANGENT POINT
DISTANCE BETWEEN HOLE AND TANGENT POINT
32.0 ± 1.0

4

4

BOW AND ASSEMBLY DETAIL

WELD AS PER DETAIL F

REFER TO DETAIL G

0.5

1.5

1.5

H

NO C'BORE NO PLUG

NO C'BORE NO PLUG

NO C'BORE NO PLUG

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

1.5

1.5

1.5

8

P

H

D3566-1

D3566-5

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13

AN3C4A BOLT (1)

AN960C10L WASHER (1)


(50 PLACES)

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 DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA	
DRAWING NO.	REV. D
D2580	SHEET 3 OF 3
TITLE	SCALE
205 SKIDTUBE ASSEMBLY	1:24

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